

### **REMARKS**

In the Office Action, the Examiner rejected claims 1, 5-9, 11, 13-22, 26-30, 32, 34-43, 47-58, 60 and 65-67. Claims 12 and 33 are withdrawn from consideration and claims 2-4, 10, 23-25, 31, 44-46 were previously canceled. By the present Response, the Applicant amends claims 1, 5-8, 11, 14-18, 22, 26-29, 32, 35-39, 42, 43, 47-50, 52-55 and 65, and cancels claims 62, 63 and 69. No new matter has been added by the present amendments. Upon entry of these amendments, claims 1, 5-9, 11-22, 26-30, 32-43 and 47-61 and 64-68 will be pending in the present application and are believed to be in condition for allowance. In view of the foregoing amendments and the following remarks, the Applicant respectfully requests reconsideration and allowance of all pending claims.

### **Interview Summary**

In a telephonic interview on August 28, 2007, Applicant's representative William Powell (Reg. No. 56,743) discussed the claims in the present application with Examiner William P. Neuder. Specifically, Applicant's representative and the Examiner discussed the Examiner's suggestion that the Applicant "amend the claims to define that the sleeve has an outer and or inner surface and that the stress absorbent material covers the entire sleeve outer and/or inner surface." Office Action, page 5. The Applicant's representative proposed several alternative phrases and strategies for amending the claim. For example, Applicant suggested amending some of the claims to more particularly point out the geometric placement of the stress-absorbing material. While the Examiner generally indicated that the suggested amendments may address the Examiner's concerns, the parties did not reach a specific agreement.

### **Claim Rejections Under 35 U.S.C. § 102**

In the Office Action, the Examiner rejected claims 14-20, 35-41, 52-57 and 65-67 under 35 U.S.C. § 102(b) as being anticipated by Gano, U.S. Patent No. 5,507,346 ("the Gano reference"). The Applicant respectfully traverses this rejection.

Anticipation under 35 U.S.C. § 102 can be found only if a single reference shows exactly what is claimed. See *Titanium Metals Corp. v. Banner*, 227 U.S.P.Q. 773 (Fed. Cir.1985). For a prior art reference to anticipate under 35 U.S.C. § 102, every element of the

claimed invention must be identically shown in a single reference. *See In re Bond*, 15 U.S.P.Q.2d 1566 (Fed. Cir.1990). Thus, if the claims contain even one recitation not found in the cited reference, the reference does not anticipate the claimed subject matter.

As a preliminary matter, the Applicant notes that by the present Response independent claim 65 has been amended to include allowable subject matter. Specifically, claim 65 has been amended to include the subject matter previously recited in claim 69, which initially depended from claim 65. Accordingly, claim 69 is presently canceled, and claim 65 is believed to be in condition for allowance based on the Examiner's previous statements. Indeed, in the Office Action, the Examiner objected to claim 69 because it was dependent upon a rejected base claim. However, the Examiner indicated that claim 69 would be allowable if rewritten in independent form.

The Applicant thanks the Examiner for indicating the allowable subject matter presently included in amended claim 65. Further, in view of the present amendment, the Applicant requests that the Examiner withdraw the rejection of independent claim 65 and provide an indication of allowance for claim 65 and the claims depending therefrom.

Turning to independent claims 14, 35 and 52 and the claims depending respectively therefrom, the Applicant asserts that the Gano reference fails to disclose all of the recited features of each of the amended independent claims. Specifically, for example, the Applicant asserts that the Gano reference fails to teach a casing covering that "*completely covers an exterior area of the sleeve, wherein the exterior area extends completely around a circumference of the sleeve and along a length of the sleeve, the circumference having a diameter perpendicular to a longitudinal axis of the sleeve and the length being parallel to the longitudinal axis of the sleeve,*" as recited in claims 14, 35 and 52. (Emphasis added.)

In contrast to the present claim features, the Gano reference merely teaches a "composite outer structure 38 that is comprised of a plurality of overlapping, composite band-like plies arranged in a plurality of *opposed helices* 40, 42" and that is formed on the outer surface 32 of a composite liner 26. *See Gano et al.*, col. 8, lines 4-8 and 22-26 (emphasis added). Specifically, the Gano reference merely forms a "*gridwork helical pattern*" on a

surface of the composite liner 26. *See* Gano et al., col. 8, lines 22-37 (emphasis added). Thus, an exterior area extending completely around a circumference of the composite liner 26 and along its length, wherein the circumference has a diameter perpendicular to the longitudinal axis of the composite liner 26 and the length is parallel to the longitudinal axis, would *not* be completely covered by the composite outer structure 38. Rather, it appears that the gridwork helical pattern of the Gano reference would only cover alternating portions of such an exterior area.

The Applicant stresses that the gridwork helical pattern of the Gano reference leaves exposed areas or “passageways” along any length of the casing 12 upon which the outer structure 38 is applied. *See* Gano et al., col. 8, lines 55-57. Indeed, this is clearly illustrated by Figure 2 of the Gano reference, which shows substantial portions of exposed casing 12. Further, the substantial exposed areas along the casing 12 in the Gano reference are an intended and direct result of the use of the helices, which are intended to create turbulent effects on drilling fluids and slurries. *See* Gano et al., col. 8, lines 55-57; col. 8, line 62 – col. 9, line 26. In other words, the areas of the casing 12 that are exposed by the openings in the gridwork helical pattern are apparently necessary to achieve the function described by the Gano reference. Accordingly, the Applicant asserts that the composite outer structure 38 of the Gano reference is clearly not equivalent to a casing coating, as presently recited. Thus, the Applicant asserts that the Gano reference fails to anticipate amended independent claims 14, 35 and 52.

Turning to dependent claims 15, 16, 36, 37, 53 and 54, the Applicant respectfully asserts that the Gano reference certainly fails to disclose that a casing covering or stress-absorbing material is “directly coated” on an exterior or interior surface of a sleeve. In contrast, as set forth above, the opposing helices 40, 42 of the Gano reference are formed by simultaneously applying conventional epoxy resins and winding bands of fiberglass or cloth tape or filaments onto the outer surface of the composite liner 26. *See* Gano et al., col. 8, lines 41-45. Accordingly, claims 15, 16, 36, 37, 53 and 54 are clearly allowable over the Gano reference.

In view of the arguments and amendments set forth above, Applicant requests that the Examiner withdraw rejections under 35 U.S.C. § 102 of independent claims 14, 35, 52 and 65, and the claims depending therefrom. Further, Applicant requests that the Examiner provide an indication of allowance for independent claims 14, 35, 52 and 65, and the claims depending therefrom.

**Claim Rejections Under 35 U.S.C. § 103(a)**

In the Office Action, the Examiner rejected claims 1, 5-9, 11, 13, 21, 22, 26-30, 32, 34, 42, 43, 47-51 and 63 under 35 U.S.C. § 103(a) as being obvious over the Gano reference. The Applicant respectfully traverses this rejection.

The burden of establishing a *prima facie* case of obviousness falls on the Examiner. *Ex parte Wolters and Kuypers*, 214 U.S.P.Q. 735 (P.T.O. Bd. App. 1979). Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention absent some teaching or suggestion supporting the combination. *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984). Accordingly, to establish a *prima facie* case, the Examiner must not only show that the combination includes *all* of the claimed elements, but also a convincing line of reason as to why one of ordinary skill in the art would have found the claimed invention to have been obvious in light of the teachings of the references. *Ex parte Clapp*, 227 U.S.P.Q. 972 (Bd. Pat. App. & Inter. 1985). Moreover, the Examiner must provide *objective evidence*, rather than subjective belief and unknown authority, of the requisite motivation or suggestion to combine or modify the cited references. *In re Lee*, 61 U.S.P.Q.2d 1430 (Fed. Cir. 2002).

Additionally, if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 U.S.P.Q. 349 (C.C.P.A. 1959); see M.P.E.P. § 2143.01. Further, one important indicium of nonobviousness is “teaching away” from the claimed invention by the prior art or by experts in the art at or after the time the invention was made. *U.S. v. Adams*, 383 U.S. 39, 148 U.S.P.Q. 479 (1966).

As a preliminary matter, the Applicant notes that by the present Response independent claim 1 has been amended to include what is believed to be allowable subject matter. Specifically, claim 1 has been amended to include the subject matter previously recited in claim 62, which initially depended from claim 1. Accordingly, claim 62 is presently canceled, and claim 1 is believed to be in condition for allowance based on the Examiner's previous statements. Indeed, in the Office Action, the Examiner objected to claim 62 because it was dependent upon a rejected base claim. However, the Examiner indicated that claim 62 would be allowable if rewritten in independent form. Additionally, claim 1 has been amended to clarify certain features.

The Applicant traverses the Examiner's rejection under 35 U.S.C. § 103 and respectfully asserts that the Gano reference fails to teach all of the features recited in each of independent claims 22 and 43. Additionally, the Applicant asserts that the Gano references certainly fails to disclose all of the features recited in the claims depending from claims 22 and 43. Further, the Applicant stresses that there is no teaching in the Gano reference that would make the current claim features obvious. Indeed, the Gano reference actually teaches away from the present claim features. Specific deficiencies in the Gano reference are set forth below with respect to the features recited in pending independent and dependent claims.

The Applicant asserts that the Gano reference fails to disclose all of the recited features of amended independent claims 22 and 43. Specifically, for example, the Applicant asserts that the Gano reference fails to teach a casing covering that "*completely covers an exterior area of the sleeve, wherein the exterior area extends completely around a circumference of the sleeve and along a length of the sleeve, the circumference having a diameter perpendicular to a longitudinal axis of the sleeve and the length being parallel to the longitudinal axis,*" as recited in claims 22 and 43. (Emphasis).

As set for above with respect to the Examiner's rejection under 35 U.S.C. § 102, in contrast to the present claim features, the Gano reference merely teaches a "composite outer structure 38 that is comprised of a plurality of overlapping, composite band-like plies arranged in a plurality of *opposed helices* 40, 42." See Gano et al., col. 8, lines 22-26 (emphasis added). Specifically, in contrast to *completely* covering an area of a sleeve with the

stress-absorbing material as set forth in the present claims, the opposed helices 40, 42 of the Gano reference merely form a "*gridwork* helical pattern." See Gano et al., col. 8, lines 22-37 (emphasis added).

The Applicant reiterates that the gridwork helical pattern of the Gano reference leaves exposed areas or "passageways" along any length of the casing 12 upon which the outer structure 38 is applied. See Gano et al., col. 8, lines 55-57. Indeed, this is clearly illustrated by Figure 2 of the Gano reference, which shows substantial portions of exposed casing 12. Further, the substantial exposed areas along the casing 12 in the Gano reference are an intended and direct result of the use of the helices to create turbulent effects on drilling fluids and slurries. See Gano et al., col. 8, lines 55-57; col. 8, line 62 – col. 9, line 26. In other words, the areas of the casing 12 that are exposed by the openings in the gridwork helical pattern are apparently necessary to achieve the function described by the Gano reference. Accordingly, the Applicant asserts that the composite outer structure 38 of the Gano reference is clearly not equivalent to the presently recited features. In fact, the Gano reference teaches away from such features. Thus, claims 22 and 43 cannot be obvious in view of the Gano reference.

Turning to dependent claims 26, 27, 47 and 48, the Applicant respectfully asserts that the Gano reference certainly fails to disclose that a casing covering or stress-absorbing material is "directly coated" on an exterior or interior surface of a sleeve. In contrast, as set forth above, the opposing helices 40, 42 of the Gano reference are formed by simultaneously applying conventional epoxy resins and winding bands of fiberglass or cloth tape or filaments onto the outer surface of the composite liner 26. See Gano et al., col. 8, lines 41-45.. Accordingly, claims 26, 27, 47 and 48 are clearly allowable over the Gano reference.

In view of the present amendments and the arguments set forth above, the Applicant requests that the Examiner withdraw the rejection of claims 1, 22 and 43 and the claims depending therefrom under 35 U.S.C. § 103. Further, the Applicant requests that the Examiner provide an indication of allowance for claims 1, 22 and 43 and the claims depending therefrom.

**Allowable Subject Matter**

In the Office Action, the Examiner objected to claims 58-62, 64, 68 and 69 as being dependent upon a rejected base claim. However, the Examiner further indicated that they would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The Applicant would like to thank the Examiner for indicating the potential allowability of the listed claims. As set forth above, the Applicant amended claims 1 and 65, respectively, to include the allowable subject matter of claims 62 and 69 based on the Examiner's suggestion. With regard to the other claims to which the Examiner objected, the Applicant believes that based on the present amendments to the independent claims, claims 58-61, 64 and 68 are now in condition for allowance.

**Request for Rejoinder of Withdrawn Claims**

Withdrawn claims 12 and 33 depend from claim 1 and 22, respectively. Accordingly, once the examiner determines that independent claims 1 and 22 are allowable, Applicant requests rejoinder of claims 12 and 33, including examination of the formerly nonelected species on the merits. In addition, because independent claims 1 and 22 are believed to be in condition for allowance for the reasons stated above, the Applicant respectfully submits that claims 12 and 33 are also in condition for allowance. Therefore, the Applicant requests that the Examiner provide an indication of allowance for claims 12 and 33.

**Payment of Fees and General Authorization for Extensions of Time**

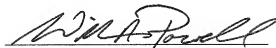
Applicant does not believe any fees are due at this time. If any fees, including fees for extensions of time and other reasons, are deemed necessary to advance prosecution of the present application, at this or any other time, Applicant hereby authorizes the Commissioner to charge such requisite fees to Deposit Account No. 06-1315; Order No. HLB0019. In accordance with 37 C.F.R. § 1.136, Applicant hereby provides a general authorization to treat this and any future reply requiring an extension of time as incorporating a request thereof.

Conclusion

Should the Examiner have any questions, comments or suggestions in furtherance of the prosecution of this application, the Examiner is invited to contact the attorney of record by telephone, facsimile, or electronic mail.

Respectfully submitted,

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